DOCUMENT RESUME

ED 158 549 EC 111 950

AUTHOR Foxen, Tom
TITLE Pedagogic Devices Relevant to Staff Training in Specialist Techniques.
PUB DATE Jun 78
NOTE 14p.; Paper presented at the World Congress on Future Special Education (First, Stirling, Scotland, June 25 - July 1, 1978)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Behavior Change; Conceptual Schemes; *Mentally Handicapped; *Models; Psychoeducational Processes; *Teacher Education

ABSTRACT

Education of mentally handicapped children involves developing specialist teaching methods, assessment instruments, and curricular objectives. The need for staff to use behavior modification techniques has shifted the emphasis from child training to staff training techniques. Pedagogic devices used to train staff may reflect the behavioral model including shaping, reinforcement, and social modeling. However, a psychodynamic view emphasizing symbolic play can also describe the devices used. Approaches involving advice on curriculum or room management changes are alternatives to staff training in teaching. Success by the trainee in using a new approach must be a fundamental objective. (Author/SBH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

- ED158549

COUNCIL FOR EXCEPTIONAL CHILDREN

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

First World Congress on
Future Special Education

University of Stirling, Scotland

June 25th - July 1st 1978

Panel 22: Early Education for Young Handicapped Children: Issues related to the Training and Involvement of Parents and Professionals

Pedagogic Devices relevant to Staff Training in Specialist Techniques

Tom Foxen, B.Sc.
Director,
Education of the Developmentally Young Project.

Hester Adrian Research Centre,
University of Manchester.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

CEC

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

©

EC111950

In the 1971 Education Act, educational provision was extended to mentally handicapped children. Up to this time, these children had been excluded from the schools by virtue of their mental retardation. They had attended Junior Training Centres run by the Department of Health. Before the transfer, they had been regarded as 'ineducable' and in many cases were also 'untestable' using standard intelligence tests. Although the children were now to receive education, there was very little information on how to teach them.

One of the earliest books addressed to this problem was entitled 'The Educational Needs of Severely Subnormal Children' by Mildred Stevens (1971). In her book she stressed that the subnormal child should be treated as a person first and foremost. She suggested that these children should be given a choice in what they did. That the environment should be structured and play be encouraged. She also anticipated the need for one-to-one teaching, and made the interesting point that such teaching should result in the improvement of the teacher's own teaching skills. The educational needs as raised by her, resulted in a list of activities the child should be engaged in at school. Much of what was included resembled good nursery school practice, reflecting the low developmental level of these children.

The stimulus to provide an <u>educational curriculum</u> (the 'what'), has been closely followed by the need to develop <u>specialised teaching methods</u> (the 'how'). Probably the most researched technique dealing with voluntary behaviour is behaviour modification. One of its apparent advantages is its non-reliance on language, a major area of developmental failure with mentally handicapped people. The third

point which has been raised by the transfer from Health to Education is the type of assessment instruments to be used. It is ironic that Binet's intelligence test has often been used to exclude subnormal children from the educational process. Now the children are included in the educational process, there is a demand for mental tests which extend below the 2 year mental age 'floor' of the I.Q. test. Piaget's work on the origins of intelligence (Piaget 1953) suggests a hierarchy of intellectual stages in sensori-motor development during these first two years of life (Piaget 1953). Content based on categories of reason necessary to deal with the environment are to be found in Piaget (1954). A recently standardised scale based on these two works is now available (Uzgiris and Hunt 1975).

Although work is being done on all three fronts, greatest progress has been made in the area of specialist teaching techniques. This is partly due to the large body of pure research and clinical application of behavioural techniques in the abnormal field generally. It is presumably also a reflection of the need of staff in special schools for an alternative approach to teaching children who have clearly failed to develop normally under 'normal' conditions.

In meeting this need, the focus of concern has moved from client skills to staff skills, i.e. to the training of 'hands-on' staff in behavioural techniques. It would appear that there is still a great deal of knowledge missing on the efficacy of behaviour modification in the regular special school classroom. One of the reasons for this is simply that staff are organisationally ill disposed to systematically try out the new techniques for themselves. Another reason is the

attitudinal objections of staff (a) to helping a child to learn, referred to as 'cheating' and (b) to providing additional incentives for learning referred to as 'bribery'. At present then, it would seem that the test of behaviour modification lies in the area of staff-training rather than child-training.

Attempts to overcome staff training resistance range from pre-selection of staff at appointment, to inducing a positive attitude change. This latter approach tends to rely on a systematic criticism of the so-called medical model, rather than providing substantive proof of the behavioural model. There is little doubt than an attitudinal change away from symptomatology and the medical model is required. Thus, according to Ullmann (1971), the first thing a behaviour therapy trainee must learn is a 'new view of people'. The trainee must cease to view her fellow man in terms of ego defences (for example), but in terms of normal outcomes resulting from past experiences. It is not surprising that, faced with this mammoth task of attitude change, Watson for example suggests screening at interview rather than training on site. However, it is doubtful whether any attitude change can be sustained without the trainee experiencing success in using the new techniques.

It is important to note that behaviour modifiers are using different techniques to teach staff from those which the staff are being taught to use with their clients. This can partly be explained by the greater maturity of the staff than their clients. However, it must also be due to the lack of a systematic theory of instruction deriving from operant conditioning research. This is hardly surprising, since the same problem exists in the sphere of normal education.

To quote a source on the state of normal teacher training:

> 'Much of the instruction given (on teaching methods) is in the form of a series of practical hints and suggestions which, being pragmatically justified, are not conceptually related to one another .... The problem is that theoretical courses are not about teaching, and that method courses, which <u>are</u> about teaching, have no theoretical foundations.'
>
> (Morrison and McIntyre 1969)

It seems then, that in attempting to disseminate a new teaching method for mentally handicapped children, Behaviour Modification specialists are having to consider deficiencies in pre-service staff training still existing in normal education. This feature is understandable to the extent that psychological research has influenced our understanding of the learning process. For instance, a major split in the psychology 'camp' hinges on whether you view insight as the generator of new behaviour, or as a result of behaviour change.

One of the theories used to account for the poor learning of retarded children is their history of failure experiences (Cromwell 1963). How true must this also be for the staff who have tried to teach them? Psychotherapist and Behaviour therapist can come together and agree that the 'effective reinforcer for both client and therapist is new successful behaviour' (Alexander and French 1946, Ullmann 1971). This must be the aim of any training course. In the staff-training courses we are running at present, we attempt to induce new successful behaviour in a simulated teaching situation. We do not seriously train for understanding of jargon

('academic' knowledge) since

(a) a knowledge of the jargon may not correlate with behaviour change, and

(b) the varied educational level of staff often promotes the learning task to an academic level not required to learn the behavioural skills being taught.

This is what we have found in practice (see also Watson and Bassinger 1974). It is not to say that academic knowledge is unnecessary for understanding of the teaching method. Our experience would however concur with Ullmann's (1971) view regarding insight, i.e. that an understanding at the symbolic level suggested by Bruner (1966) is heavily dependent on progress at the behavioural or enactive level. These considerations have influenced the type of course we run.

The following pedagogic devices are used:

(a) Task analysis and shaping

Knowledge and skills are broken down into ten sequential units, with each unit assuming skills acquired from the previous unit. These consist of 1. Operant behaviour, 2. Reward assessment, 3. Reward training, 4. Prompting, 5. Task analysis, 6. Shaping, 7. Imitation, 8. Time-out, 9. Overcorrection, 10. Generalisation and discrimination. Each unit involves one hour of training, so that a course could be completed in less than a week or programmed over several weeks depending on staff availability.

Each hour of training is divided into a 10 minute question and answer session, 10 minutes video observation and analysis, then 20 minutes role-play, finishing off with 20 minutes simulated practice with the child.

(b) Written information A manual is provided consisting of ten chapters dealing with the content area of each unit in the order they occur. Trainees read each unit before attending the practical.

(c) Written instructions A workbook is also provided presenting each unit as a practical exercise to be carried out in the training session. Each work unit provides instructions on recording, use of the particular technique and preparation for a practical with a child.

(d) Video models A five-minute videotape is shown of a trainer using the technique to be learnt.

(e) Role-play simulation Twenty minutes of the practical is spent on role-play. The course instructor provides a live model of the training technique with the trainee enacting her client. In the second ten minute period, the trainee enacts herself imitating the video and live models she has just seen, with the instructor enacting her client.

(f) Simulated practice In the last twenty minutes, the trainee practices the technique with a real child. A task will have been selected beforehand as will rewards where appropriate, and these will have been used in the role play. In this way there is a progressive reality content brought in (verisimilitude) from the video model through role-playing to actual trying out of the technique with a child in a distraction free situation. Both role-play and simulated practice give the trainee an opportunity to use her social imitative skills in a situation less 'threatening' than the regular work setting. These mock-up situations also allow the instructor to shape the trainee's behaviour at a time when the child's progress is not the primary concern.

(g) Prompting and fading Answers on academic knowledge are textually prompted by provision of written programmed questions requiring missing words to be inserted. Generalisation of this knowledge is prompted by

requesting examples from the trainee's own experience during the ten minute question and answer period. Recording of trainer and child behaviour is primed by providing skeleton recording sheets and a video model to analyse. The video model is accentuated by drawing attention to critical features, e.g. rewarding of child, and verbally prompting the trainee to score these features on her record sheet. Role-play by the trainee is primed by placing her in the position of the child and providing a live training model (the instructor). Role-play by the trainee as herself is further prompted by presenting a pretend child for her to work with. Simulated Practice with the child is prompted by the previous role-play but also by the presence of a real child and a real task to teach the child. Verbal prompting of correct behaviour is given throughout the practical. In cases where verbal prompting is ineffective, the instructor may demonstrate (live model) e.g. during role-play or actually physically prompt the trainee. Ideally, physical and gestural prompts are reserved for the role-play, so that only verbal prompts need be given during the practice with the child. As these prompts from the instructor are faded, so natural prompts can take over. Thus in the simulated practice, the child's responses prompt new behaviour from the trainee, in the presence of the instructor. Fading of instructor prompts are critical to the generalisation of trainer skills into the work setting. In psychoanalytic jargon, a dependency is created which must be broken if autonomy is to result.

(h) Shaping Having answered the programmed questions with answers provided, the trainee has to provide similar answers in a less-structured oral interview situation. Recording of child responses is started during video observation and faded in to the role-play and simulated practice. Recording during role-play and practice is expected during

later training sessions when the trainee is more familiar with the basic techniques. Each unit incorporates the skills taught in the previous session. Thus in Unit 4 - prompting, whilst accentuating prompting, the trainee is expected to carry out reward assessment (unit 2) and reward training (unit 3). In this respect the practical sessions can be regarded as successive approximations to the target behaviour. Generalisation of skills is shaped by extending one or more of the training practicals to the classroom setting, whilst retaining the same objectives for the child. Throughout the practical, instructor feedback is focused on appropriate trainee behaviour with minimal attention (ignoring) of inappropriate behaviour.

(i) Modelling and Imitation During role-play, the trainee imitates the models provided by the video demonstration and the instructor. During practice with the child, the trainee imitates her own previous behaviour which has been shaped up during the role-play. Ullmann (1971) suggests that the role enacted by the trainee is that of 'teacher'.

(j) Feedback, knowledge of results and reinforcement Immediate knowledge of results on academic questions is given by providing written answers in the workbook. Correctness is assumed to be a conditioned reinforcer. The trainee is also given verbal feedback during the question and answer section of the practical. Following the principle that negative feedback is less informative and probably generates negative emotional tone, feedback is generally reserved for appropriate responses. Inappropriate responses are ignored as much as possible. This is also in line with the principle of shaping by successive approximations. Our experience suggests that feedback, as with prompting, must be geared to the individual trainee. Some trainees indicate a need for heavy prompting and feedback whereas others wish to get on and make their own mistakes. The difficulty for the instructor is to see the situation as the trainee sees it. As with the child who is allowed

to fail repeatedly, failure by the instructor to reward ongoing behaviour of the trainee can result in an aversive situation developing for the trainee. It is an extremely fine line which demarcates inappropriate behaviour (to be ignored) from approximations to target behaviour (to be reinforced). This demarcation can be affected by the current mood of the instructor in the same way as the trainee's mood affects her approach to the child. The strength of social reward is also affected by instructor/trainee/client mood. It is clear that social reward is the easiest to use, but may be unreliable almost like a packet of sweets, some of the contents of which are sweet but others are bland. The major conditioned reinforcer is a training certificate at the end of the course, but the case is supported which suggests giving primary reinforcers such as time off and bonuses for progress during the course. The threat of non-qualification is a typical motivator in pre-service courses but is not recommended (see Skinner 1968, 1971).

Implications

Two thirds of staff training time is spent in a simulated teaching situation. The two major pedagogic devices used are role-play and simulated practice with the child which prompt imitation and play by the trainee. Our view is that if the trainee can achieve success at this level, then generalisation to the classroom or real situation is more likely. Success with new behaviours creates a need to engage in such behaviours again. Without this need, it is difficult to envisage the conditions under which a trainee will enthusiastically undertake behaviour modification in her working situation. Such enthusiasm is vital for overcoming organisational constraints posed by group teaching. Initially, a relationship between the trainee and the professional may be critical. However, the necessary break in this

support is only viable if successful methods of dealing with her children have begun to be learnt during the training course. We are at present involved in programmed generalisation of taught skills into the classroom. In this respect, the response of the children to the teaching method then becomes critical. This point has been emphasised by Kiernan's team in their evaluation of in-service training in behaviour modification (Cooney et al. 1977). Task selection and matching task difficulty to the level of the child also assume importance. These two factors require knowledge in the areas of curriculum and assessment. At present, we are relying on our own knowledge and intuition and the wealth of experience the trainer has of her child.

It is necessary not only to evaluate the effectiveness of behaviour modification in use in the classroom but also to identify other critical features which may have equal or more importance than the teaching method being used. We know for instance, that simply giving advice on developmental sequences and the next step to teach can produce important changes in parents behaviour with their mentally handicapped children (Cheseldine, 1977), without any attempts to train the parents in teaching skills. This would appear to be the main feature of the American Portage Home Intervention Model (Shearer and Shearer 1972). It is worth noting that the factor controlled in this approach is the organisational one, i.e. it is easier to obtain a one-to-one teaching situation in the home. This approach has been shown to be successful in England by Kushlick's team in Wessex and Blunden's team in South Glamorgan. (Smith and Kushlick 1977, Revill and Blunden 1977).

The organisational factor has been tackled directly by changing staff behaviour in the group setting, using a room management system (Porterfield, Blunden and Blewitt, 1977). In this approach, some attempt to provide child relevant materials is made, but the main

emphasis is on systematic reinforcement of all children in the teaching situation for on-task behaviour. It would appear that neither the Portage system nor the room management approach rely on intensive training of staff in one-to-one use of behaviour modification techniques. Our approach does do this (EDY Project, 1976), but it is becoming very clear that generalisation in the classroom will only be possible if the organisational constraints are overcome. It is necessary to produce a 'Hawthorn' effect in the classroom to reinforce our own behaviour. It would appear impossible to proceed on a dismantling research strategy to evaluate pedagogic devices until successful application has been achieved, and felt to be achieved by professionals and staff alike. We are working towards this objective at present.

REFERENCES

1. Alexander, F. and French, T.M. (1946) Psychoanalytic therapy New York: Ronald.
2. Bandura, A. and Walters, R.H. (1963) Social learning and personality development. New York: Holt, Rinehart and Winston.
3. Bruner, J.S. (1966) Toward a theory of instruction. New York: Norton.
4. Cheseldine, S.E. (1977) Parent-child interaction and language facilitation schemes with the mentally handicapped. Manchester University: Unpublished Ph.D. Thesis.
5. Cooney, N., Hutchinson, B., Kiernan, C., Pokora, J., Reid, B., and Saunders, C. (1977) Evaluation of an In-Service Training Course for Teachers of Children in Special Care. Research Report: Thomas Coram Research Unit, University of London.
6. Cromwell, R.L. (1963) A Social Learning approach to Mental Retardation. In Ellis, N.R. (Ed.) Handbook of Mental Deficiency, New York: McGraw-Hill, 1963 pp 41-91
7. Education of Developmentally Young Mentally Handicapped Children: A Programme of Evaluated Dissemination and Research. Brief description of the project. Hester Adrian Research Centre, University of Manchester, November 1976.
8. Morrison, A., and McIntyre, D. (1969) Teachers and Teaching, Penguin, Harmondsworth.

9. Piaget, J. (1951) Play dreams and imitation in childhood. New York: Norton.

10. Piaget, J. (1953) The Origin of Intelligence in the Child. London: Routledge and Kegan Paul.

11. Piaget, J. (1954) The Construction of reality in the child. New York. Basic books.

12. Porterfield, J., Blunden, R., and Blewitt, E. (1977) The Organisation of an Activity period for Profoundly Handicapped Adults: Summary Report to the Welsh Office, DHSS and Unit Steering Committee. Research Report, Mental Handicap in Wales - Applied Research Unit, University of Wales.

13. Revill, S., and Blunden, R. (1977) Home Training of Pre-School Children with Developmental Delay: Report of the Development and Evaluation of the Portage Service in South Glamorgan. Research Report, Mental Handicap in Wales - Applied Research Unit, University of Wales.

14. Shearer, M.S. and Shearer, D.E. (1972) The Portage Project: A model for early childhood education. Exceptional Children, 38, 210-217

15. Skinner, B.F. (1968) The Technology of Teaching. New York: Appleton-Century-Crofts.

16. Skinner, B.F. (1971) Beyond freedom and dignity. New York: Knopf.

17. Smith, J., Kushlick, A. and Glossop, C. (1977) The Wessex Portage Project: A Home Teaching Service for Families with a Pre-School Mentally Handicapped Child. Research Report No. 125. Health Care Evaluation Research Team, Winchester, Wessex Regional Health Authority.

18. Stevens, M. (1971) The Educational Needs of Severely Subnormal Children. London: Edward Arnold.

19. Ullmann, L.P. (1971) The Major Concepts taught to Behaviour Therapy Trainees. In Graziano, A.M. (Ed.) Behavior Therapy with Children, 1971, Chicago: Aldine-Atherton.

20. Uzgiris, I.C., and Hunt, J.McV. (1975) Assessment in Infancy. Illinois: University of Illinois Press.

21. Watson, L.S. (1971) Behaviour Modification Training. Seminar. Hester Adrian Research Centre, University of Manchester.

22. Watson, L.S., and Bassinger, J.F. (1974) Parent training technology: A potential delivery system. Mental Retardation, 12, 3-10